

Pennsylvania Department of Transportation



2005-2006 Winter Maintenance Guide



*PennDOT Engineering District 6
7000 Geerdes Boulevard
King of Prussia, PA 19406*

Edward G. Rendell, Governor

Allen D. Biehler, P.E., Secretary

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Pennsylvania Department of Transportation

Engineering District 6
7000 Geerdes Boulevard
King of Prussia PA 19406
610.205.6700

Administration

Dep. Secretary for Administration/Acting District Executive	Rina Cutler
Acting Asst. District Executive for Maintenance	Nicholas Martino
District Maintenance Manager	Jim Siodlowski
District Maintenance Manager	Dan DeMaria

Public Information Office

Assistant Press Secretary	Gene Blaum (office) 610.205.6800 (cell) 610.587.7888
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Community Relations Coordinator	Charles Metzger (office) 610.205.6801 (cell) 610.587.7889
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Safety Press Officer	Jenny Robinson (office) 610.205.6798 (cell) 610.476.2954
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District 6 Winter Maintenance Information

Information on the Pennsylvania Department of Transportation's snow removal program in southeastern Pennsylvania can be obtained by calling the Engineering District 6 Public Relations Office at 610.205.6800, 610.205.6801, or 610.205.6798 weekdays from 8 a.m. to 5 p.m. For information on weekends or weekdays after normal business hours, contact PennDOT's regional public information staff or the county maintenance office for details on snow removal operations in your area of interest. The county maintenance telephone numbers are listed on the page containing that county's information.

For motorists traveling on interstate highways in Pennsylvania, travel conditions can be easily obtained by dialing PennDOT's Road Condition Hotline. Within Pennsylvania the toll-free hotline number is 1-888-783-6783. For calls outside of Pennsylvania, customers may call 1-717-783-5186.

Motorists are encouraged to report maintenance concerns to PennDOT by using its toll-free Roadway Maintenance Hotline at 1-800-FIX-ROAD (1-800-349-7623). The 1-800-FIX-ROAD number should not be used to report traffic crashes, disabled vehicles, or other emergencies. Motorists should continue to call 9-1-1 to report these types of emergencies.

For more information, visit us through the Pennsylvania Homepage at www.state.pa.us or visit PennDOT directly at www.dot.state.pa.us.

2005-06 Winter Facts and Figures

District 2005-06 Winter Maintenance Budget:	\$17,815,000
Bucks County:	\$ 3,600,000
Chester County:	\$ 4,435,000
Delaware County:	\$ 2,260,000
Montgomery County:	\$ 3,360,000
Philadelphia County:	\$ 4,360,000

District 2004-05 Winter Costs:	\$21,380,000
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State Highway Miles:	3,530	Lane Miles:	8,858
Bucks County	960	Bucks County	2,238
Chester County	1,022	Chester County	2,298
Delaware County	448	Delaware County	1,184
Montgomery County	770	Montgomery County	1,852
Philadelphia County	360	Philadelphia County	1,286

Tons of Salt:	98,880	Tons of Anti-Skid:	15,436
Bucks County	22,690	Bucks County	6,015
Chester County	28,158	Chester County	4,600
Delaware County	12,564	Delaware County	2,700
Montgomery County	24,651	Montgomery County	2,121
Philadelphia County	10,651	Philadelphia County	0

Gallons of Liquid Magnesium Chloride:	81,104
Bucks County	14,000
Chester County	27,135
Delaware County	10,100
Montgomery County	29,869
Philadelphia County	0

Plow Trucks:	402	(PennDOT Owned, 182)
Bucks County	107	(42)
Chester County	99	(44)
Delaware County	79	(32)
Montgomery County	69	(44)
Philadelphia County	48	(20)

Municipal Agreements:	96	Miles Covered:	1,159
Bucks County	16	Bucks County	76
Chester County	32	Chester County	243
Delaware County	13	Delaware County	120
Montgomery County	34	Montgomery County	393
Philadelphia County	1	Philadelphia County	327

Municipal Snow Removal Program

Ninety-six municipalities in southeastern Pennsylvania will plow snow and ice from state highways within their boundaries this winter under the state Municipal Snow Removal Program. The participating municipalities are:

Bucks County -- 16 Agreements

Doylestown, Morrisville, Newtown, Perkasio, Sellersville, Telford, Tullytown boroughs; Durham, Haycock, Lower Makefield, Newtown, Northampton, Upper Makefield, Upper Southampton, Warminster, Wrightstown townships.

Chester County -- 32 Agreements

City of Coatesville, Downingtown, Kennett Square, Oxford, Parkesburg, South Coatesville, West Chester boroughs; East Bradford, East Coventry, East Fallowfield, East Marlborough, East Pikeland, East Vincent, Easttown, Elk, London Britain, Londonderry, Lower Oxford, North Coventry, Pocopson, Thornbury, Tredyffrin, Upper Oxford, Uwchlan, Wallace, West Bradford, West Brandywine, West Goshen, West Grove, West Marlborough, West Nantmeal, Willistown townships

Delaware County -- 13 Agreements

City of Chester, Aldan, Collingdale, Marcus Hook, Ridley Park, Upland boroughs; Aston, Chester, Haverford, Marple, Newtown, Radnor, Springfield townships

Montgomery County -- 34 Agreements

Ambler, Conshohocken, East Greenville, Hatboro, Jenkintown, Lansdale, Norristown, North Wales, Royersford, Schwenksville, Souderton boroughs; Abington, Cheltenham, Douglass, Franconia, Hatfield, Horsham, Limerick, Lower Frederick, Lower Merion, Lower Moreland, Lower Salford, Marlborough, Perkiomen, Plymouth, Springfield, Upper Dublin, Upper Frederick, Upper Gwynedd, Upper Hanover, Upper Merion, Upper Moreland, Upper Pottsgrove, Upper Salford townships

Philadelphia County -- 1 Agreement

City of Philadelphia

Bucks County Maintenance

Headquarters: 229 North Broad Street
Doylestown, PA 18901

Telephone Number: 215.345.6060

Staff: Dawn Knisley, County Maintenance Manager
Cal Morrison, Acting County Maintenance Manager *
Ed Aikey, Asst. Maintenance Manager
Ralph Cobb, Asst. Maintenance Manager
Ron Martin, Acting Asst. Maintenance Manager
Scott Bittner, Roadway Program Coordinator

Personnel: 122

Salt Supplier: International Salt Co.
Clarks Summit, PA

Salt Stockpiles: 8

Stockpile Locations:

Trevoise Road near PA State Police, Bensalem Township

PA 13 and Tyburn Road, Falls Township

PA 413, 1 mile south of PA 332, Newtown Township

229 North Broad Street, Doylestown Borough

Old Bethlehem Pike at PA 309 Bypass, West Rockhill Township

PA 563, 4 miles west of PA 412, Haycock Township

PA 663, 2 miles south of PA Turnpike, Milford Township

PA 611 at Ferry Road, Plumstead Township

*Dawn Knisley is presently serving as PennDOT's acting maintenance manager in Delaware County. Until her return, Cal Morrison is serving as PennDOT's acting maintenance manager in Bucks County.

Chester County Maintenance

Headquarters: 401 Montgomery Avenue
West Chester, PA 19380

Telephone Number: 610.436.2091

Staff: Mike Rebert, County Maintenance Manager
Joe Durning, Asst. Maintenance Manager
Bob Laird, Asst. Maintenance Manager
Dave Pflueger, Asst. Maintenance Manager
Nick Tuscai, Asst. Maintenance Manager
Mike Burkhardt, Roadway Program Coordinator

Personnel: 130

Salt Supplier: American Rock Salt Co.
Mount Morris, NY

Salt Stockpiles: 12

Stockpile Locations:

Swedesford Road at PA 29, East Whiteland Township

Delchester Road and PA 3, Willistown Township

PA 3 at US 202, West Goshen Township

PA 100 near Uwchlan Township Building, Uwchlan Township

Pennhurst State Hospital Grounds, East Vincent Township

PA 282 near PA 82, West Nantmeal Township

US 30 Bypass at US 322, Caln Township

US 30 Bypass and Reeceville Road, Caln Township

US 30 Bypass and PA 10, Sadsbury Township

PA 162 at Embreeville State Hospital, West Bradford Township

US 1 Bypass north of Newark Road, New Garden Township

PA 10 at US 1 Bypass, Lower Oxford Township

Delaware County Maintenance

Headquarters: 426 South Old Middletown Road
Media, PA 19063

Telephone Number: 610.566.0972

Staff: Dawn Knisley, Acting County Maintenance Manager
John Bush, Asst. Maintenance Manager
Mike Murphy, Asst. Maintenance Manager

Personnel: 70

Salt Supplier: International Salt Co.
Clarks Summit, PA

Salt Stockpiles: 4

Stockpile Locations:

Old Middletown Road at Bortondale Road, Middletown Township

US 13 (Chester Pike) under I-95, Ridley Township

PA 261 at US 322, Bethel Township

Lawrence Road and PA 3, Marple Township

Montgomery County Maintenance

Headquarters:	Swede Road and Johnson Highway PO Box 35 Norristown, PA 19404
Telephone Number:	610.275.2368
Staff:	George Cole, County Maintenance Manager Mark Armstrong, Asst. Maintenance Manager Howard Houseknecht, Asst. Maintenance Manager Steve Poloway, Asst. Maintenance Manager Michael Ropski, Asst. Maintenance Manager Steve Mueller, Roadway Program Coordinator
Personnel:	131
Salt Supplier:	International Salt Co. Clarks Summit, PA
Salt Stockpiles:	8

Stockpile Locations:

Swede Road at Johnson Highway, East Norriton Township

I-76 West at Gladwyne Exit, Lower Merion Township

Black Rock Road near US 422/Oaks Interchange, Upper Providence Township

US 422 at Sanatoga Interchange, Lower Pottsgrove Township

PA 29, Red Hill Borough

PA 73, 1/2 mile west of PA 113, Skippack Township

Germantown Pike at I-476, Plymouth Township

PA 309, 1/2 mile north of Norristown Road, Lower Gwynedd Township

Philadelphia County Maintenance

Headquarters: Blaine and Ruffner streets
Philadelphia, PA 19140

Telephone Number: 215.225.1415

Staff: Lynn Greer, Acting Maintenance Manager
Steve Niknam, Asst. Maintenance Manager
Pete Sisifo, Asst. Maintenance Manager
Rodney Stith, Acting Asst. Manager

Personnel: 69

Salt Supplier: International Salt Co.
Clarks Summit, PA

Salt Stockpiles: 4

Stockpile Locations:

Blaine and Ruffner streets (off Hunting Park Avenue)

I-95 North at Betsy Ross Bridge (Northeast Philadelphia)

Oregon Avenue at Front Street under I-95 (South Philadelphia)

Broad Street at the U.S. Naval Yard under I-95 (South Philadelphia)

2005-06 District 6 Winter Maintenance Notes

PennDOT maintains 3,530 miles of state highway in Bucks, Chester, Delaware, Montgomery and Philadelphia counties. The actual number of "lane miles" plowed in the region during a snowstorm is 8,858. Lane miles are calculated by multiplying the distance or length of a highway by the number of travel lanes. For instance, a two-lane, five-mile road has 10 lane miles.

PennDOT will enter this winter with 98,880 tons of salt and 15,436 tons of anti-skid stockpiled in the five-county Philadelphia region.

PennDOT's statewide winter budget is \$175 million. Statewide, PennDOT owns and maintains 39,890 miles of state highway and 88,247 lane miles.

This winter in southeastern Pennsylvania, PennDOT's road salt is supplied by International Salt Company, Inc., LLC of Clarks Summit, Pa., (Bucks, Delaware, Montgomery, and Philadelphia counties) and American Rock Salt Co., of Mount Morris, N.Y., (Chester County). PennDOT paid an average of \$43.12 a ton for salt and \$10.25 a ton for anti-skid.

Past salt use in District 6:

Year	Tons of Salt	Year	Tons of Salt
2004-05	60,511 tons	1991-92	21,012 tons
2003-04	101,194 tons	1990-91	27,481 tons
2002-03	101,956 tons (Record)	1989-90	38,238 tons
2001-02	24,155 tons	1988-89	29,308 tons
2000-01	80,011 tons	1987-88	34,049 tons
1999-00	58,886 tons	1986-87	40,238 tons
1998-99	59,615 tons	1985-86	42,820 tons
1997-98	14,907 tons (Record)	1984-85	33,084 tons
1996-97	54,413 tons	1983-84	41,250 tons
1995-96	101,185 tons	1982-83	24,032 tons
1994-95	25,267 tons	1981-82	40,763 tons
1993-94	87,899 tons	1980-81	30,688 tons
1992-93	44,921 tons		

Salt is used to melt snow and ice; however, it requires two factors to work effectively: traffic and temperatures above 20 degrees Fahrenheit.

PennDOT uses salt and anti-skid (a mixture of small stones and sand) to melt snow, improve traction, and reduce slippery conditions during a snowstorm. PennDOT uses 100 percent straight salt on interstate highways, major expressways, and other heavily traveled roads in the region.

Pre-Wetting Road Salt: For the 12th straight year PennDOT will spray road salt with liquid magnesium chloride to enhance salt's melting capability in cold temperatures. Road salt's ability to melt snow or ice in cold temperatures diminishes when temperatures are 20 degrees or lower; therefore, PennDOT wets or "heats" salt with liquid magnesium chloride to make it more effective in melting snow or ice faster in lower temperatures.

Spraying or "pre-wetting" salt helps reduce the amount of salt spread during a storm since larger quantities of dry salt are needed to de-ice a road in temperatures below 20 degrees.



PennDOT's salt storage facility at its Montgomery County Maintenance Building in Norristown can hold 4,000 tons of salt. To the right of the building is the liquid magnesium holding tank, from which liquid magnesium is sprayed onto the road salt prior to its placement on the highway.

Last winter in District 6, PennDOT used 28,048 gallons of liquid magnesium chloride.

PennDOT enters this winter with 81,104 gallons of liquid magnesium chloride stockpiled in the five-county Philadelphia region.

This winter, 28 of PennDOT's 36 stockpiles in southeastern Pennsylvania are equipped with a 3,000-gallon tank of liquid magnesium chloride. Each stockpile will start the winter with 3,000 gallons on hand. Liquid magnesium chloride costs 79 cents per gallon.

Anti-icing: For the 10th straight year, PennDOT will utilize its "anti-icing" operation, which involves spraying salt brine (salt water) onto the dry roadway to prevent snow from bonding immediately to the pavement.



A salt brine machine (above) is located at each PennDOT county maintenance office in southeastern Pennsylvania to make salt water for PennDOT's anti-icing operation. PennDOT mixes solar salt and water in the tank that can produce 500 gallons of brine at a time.

This winter, PennDOT will use "anti-icing" technology on I-95, I-76, and I-676 in Philadelphia; US 202/PA 611 Bypass, PA 132, US 13, I-95, PA 413, PA 313, and PA 309 in Bucks County; US 1, US 202, US 30, PA 41 and PA 100 in Chester County; US 1 Bypass, US 202, I-476, and I-95 in Delaware County; and I-76, I-476 and US 422 in Montgomery County.

Big Icicle Removing Device (B.I.R.D): PennDOT's Philadelphia County Maintenance Unit developed this mechanism to remove icicles from tunnels, bridges, and side walls. The BIRD is attached to a dump truck and raised to knock icicles into the truck. In years past, this procedure was done by placing a person in the bed of the truck and knocking icicles down with a long pole, a very time consuming procedure. The portable unit can be removed in minutes to return the dump truck to its primary function of plowing and salting during the winter months.



PennDOT's BIRD device, seen here in its raised position, is used to knock icicles down from overhead bridges, tunnels and walls.

During a snowstorm, PennDOT begins plowing operations after one inch or more of snow has accumulated on the road.

State highways in Pennsylvania are classified into six categories. They are:

- Type A:** Interstate Highways (e.g. I-95, I-76)
- Type B:** Other Expressways and Principal Arterial Highways (e.g. US 202, US 422, US 1, PA 309)
- Type C:** Minor Arterial Highways/Heavily Traveled Local Routes (e.g. US 30, PA 3, PA 152, PA 611)
- Type D:** Collector Highways (rural routes with light to moderate traffic)
- Type E:** Local Access Highways
- Type F:** Ramps

This winter, PennDOT will use many private contractors to salt and plow state highways in the region.

In 2004-2005, PennDOT spread 748,752 tons of salt and 775,000 tons of anti-skid on state highways across the Commonwealth.

Road conditions in Pennsylvania often are compared to those in neighboring states in the winter. Though most comparisons are purely subjective and relative to fluctuating weather conditions and temperatures, one significant difference between Pennsylvania and its adjoining states is the number of state highway miles each state maintains. The linear miles of state highway in each state are:

Pennsylvania	39,890	(3,530 District 6)
Maryland	5,130	
New Jersey	2,308	
Delaware	5,096	

96 municipalities in southeastern Pennsylvania this winter will clear snow and ice from state-owned highway within their boundaries under the state's Municipal Snow Removal Agreement Program. The municipal partners have entered into an agreement with PennDOT, whereby the state reimburses the city, township or borough for its services. The monetary reimbursement is based on lane miles covered and roads serviced. This winter 32.8 percent (1,159 of 3,530 miles) of the state miles in southeastern Pennsylvania will be serviced by municipal crews.

Statewide, PennDOT is partnering with 768 municipalities under its Winter Municipal Snow Removal Agreement Program.

In the City of Philadelphia, city crews salt and plow all state highways, except I-76 (Schuylkill Expressway), I-95, I-676, Woodhaven Road/PA 63, US 1 (Roosevelt Expressway) Extension, and the Platt Bridge (PA 291). PennDOT crews and contractors plow these interstates and major routes.

Studded tires are permitted on vehicles in Pennsylvania each season from November 1 to April 15. The reason for this regulation is that prolonged use of studded tires damages the road surface. Motorists who continue to use studded tires after the cutoff date may be fined.

Past Salt and Anti-Skid Use

	Tons of Salt Used				
	<u>Bucks</u>	<u>Chester</u>	<u>Delaware</u>	<u>Montgomery</u>	<u>Phila.</u>
1989-90	8,970	10,276	5,942	9,483	3,602
1990-91	6,095	7,262	4,735	5,891	3,501
1991-92	5,885	5,786	2,107	5,781	1,452
1992-93	10,424	12,104	6,132	11,279	4,982
1993-94	23,622	19,805	15,161	17,247	12,064
1994-95	7,369	7,180	4,616	4,449	1,653
1995-96	28,865	28,101	15,353	19,478	10,388
1996-97	16,044	14,060	9,653	9,688	4,968
1997-98	4,800	4,363	2,022	3,074	648
1998-99	18,969	15,256	9,606	9,864	5,889
1999-00	18,034	12,518	8,998	13,324	6,012
2000-01	25,714	19,228	13,570	14,558	6,940
2001-02	7,375	6,443	4,086	4,773	1,476
2002-03	32,067	26,322	12,274	20,657	10,636
2003-04	27,821	27,017	11,556	19,045	8,400
2004-05	20,821	13,813	9,619	11,353	5,503

	Tons of Anti-Skid Used				
	<u>Bucks</u>	<u>Chester</u>	<u>Delaware</u>	<u>Montgomery</u>	<u>Phila.</u>
1989-90	10,180	10,007	3,330	3,887	0
1990-91	6,894	6,252	2,924	3,587	0
1991-92	5,271	3,695	1,296	2,836	0
1992-93	12,897	7,469	2,499	6,435	0
1993-94	29,771	25,574	6,954	13,542	0
1994-95	5,636	2,715	1,163	2,354	0
1995-96	19,604	11,509	1,004	9,816	0
1996-97	10,951	5,198	1,280	4,971	0
1997-98	2,723	698	236	84	0
1998-99	4,856	5,816	1,068	5,417	0
1999-00	7,071	8,275	405	2,972	0
2000-01	9,822	9,186	84	6,992	0
2001-02	3,112	2,947	548	1,678	0
2002-03	10,912	10,703	1,158	6,372	0
2003-04	3,277	9,142	872	4,776	0
2004-05	7,166	5,731	1,270	3,261	0

	Gallons of Liquid Magnesium Chloride Used				
	<u>Bucks</u>	<u>Chester</u>	<u>Delaware</u>	<u>Montgomery</u>	<u>Phila.</u>
2001-02	60	5,638	2,016	400	0
2002-03	3,830	8,948	2,860	6,841	0
2003-04	13,083	27,135	13,110	18,700	1,100
2004-05	4,053	12,435	1,728	9,832	0

Winter Driving Tips

Always wear your seat belt, drive at a reduced speed, and always drive defensively.

Always turn on your headlights during inclement weather.

Give yourself plenty of time to get to where you're going during the winter.

Keep your gas tank full.

Maintain at least twice the normal following distance when driving on snow or ice. Rear-end collisions account for most winter crashes.

Keep your vehicle in proper working condition. Make sure the engine is tuned and the battery, belts, hoses and radiator are checked. Examine your tires to make sure they have adequate tread. Also, remember to keep your tires properly inflated.

Periodically check the level of your windshield washing fluid and only use fluids containing an anti-freeze solvent. Keep an extra container of windshield fluid in the trunk.

Clear snow and ice from your windows, mirrors, hood, headlights, taillights, and trunk before driving.

Keep in your vehicle during the winter: an ice scraper/snow brush, de-icer, small snow shovel, warning devices (flares or triangles), bag of salt or sand, flashlight, battery cables, tire chains, paper towels, and a blanket.

Maintain a distance of at least six car lengths behind a snow plow.

Do not pass a snow plow because the plow blades are wider than the truck.

Car pool or use mass transit whenever possible during the winter. Fewer cars on the road make travel safer during a snowstorm and expedite snow plowing operations.

Use extra care when driving on a bridge or elevated ramp during the winter because they freeze before roads do.

Don't drink and drive. Alcohol and icy roads can be a deadly combination.

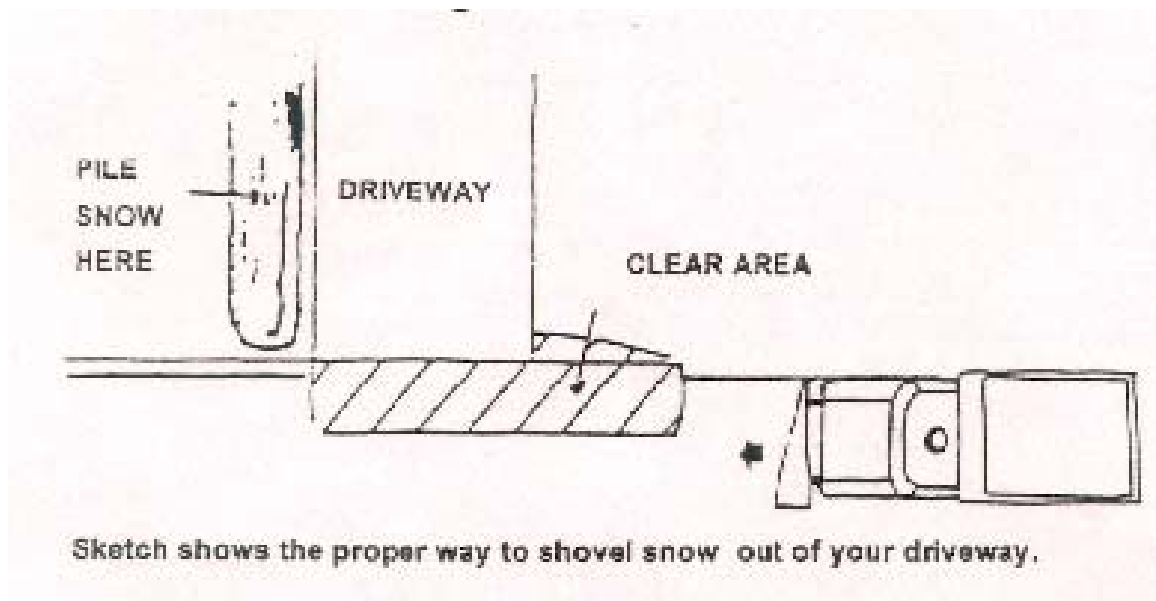
Snow Shoveling Tips

PennDOT offers tips on shoveling your driveway to avoid being plowed in.

After a snowstorm, how many times have you shoveled your driveway only to have it plowed in?

PennDOT suggests that you clear an area to the right of your driveway (as seen in the diagram below) to give the snow on the blade of the plow a place to empty before it gets to your driveway. This way you won't have to do the same job twice.

PennDOT also reminds you that it is illegal to push snow from a parking lot or driveway onto a state highway.



Winterizing your mailbox

PennDOT and the U.S. Postal Service are both expected to deliver during the winter season... come rain, sleet, snow, or all of the above. The location of your mailbox along the roadway can affect the efficiency of both mail service and snow plowing operations.

Where is your mailbox located? Your letter carrier will make every effort to deliver the mail. However, if the mailbox is not accessible to the carrier due to snow buildup, or if it is not properly located along the road, you may have to pick up your mail at the post office. PennDOT allows property owners to place mailboxes within the state's legal right-of-way, out of respect for the U.S. Postal Service's need to deliver, and mail customers' convenience of delivery; however, mailbox damage is the responsibility of the property owner.

Normally, if a mailbox is placed as far from the shoulder of the road as the carrier can reach from a vehicle and the mailbox rests on a firm support, the mailbox should be able to withstand the force of snow from the plowing operation. Be sure your mailbox has a strong support. You also may wish to use reflective tape or other material to make the mailbox easier to see during storms or during dark hours.

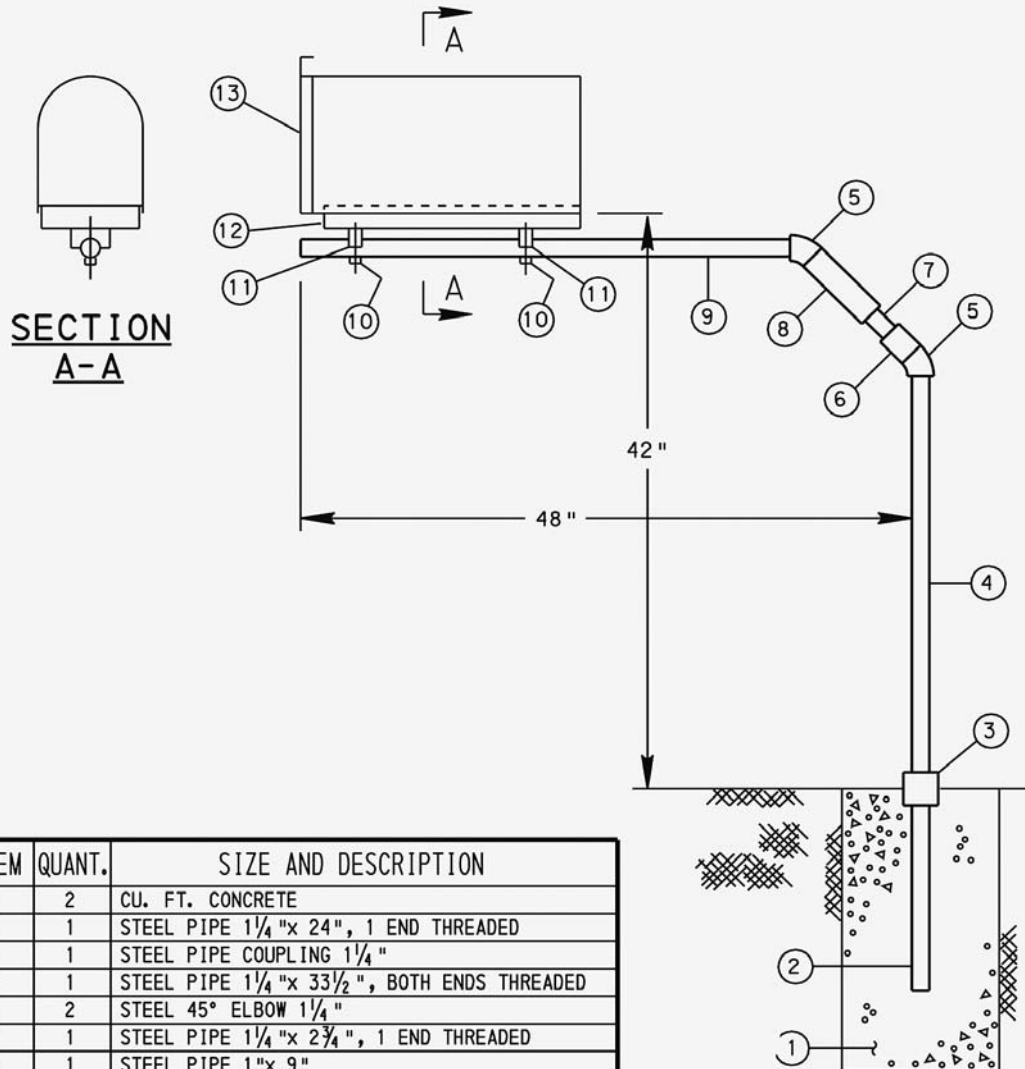
Plowing operations can push snow against or in front of mailboxes, limiting access and perhaps causing damage to supports. If the mailbox support is within the highway right-of-way, it's the owner's responsibility. Check your mailbox and support often, clearing snow from it and depositing the snow properly (never shovel snow onto the road). Homeowners who have followed these tips in the past and have still experienced mailbox damage may wish to consider installing a cantilevered mailbox support that will swing a mailbox out of harm's way. If you have questions as to the proper location of your mailbox along the roadway, contact your local post office.

PennDOT urges your cooperation in winterizing your mailbox for the snow season. Taking steps to ensure the visibility and stability of your mailbox will help PennDOT and letter carriers deliver their best this winter.

SPECIFICATIONS FOR A CANTILEVER MAILBOX

MAILBOX.DGN

CANTILEVER MAILBOX SUPPORT



ITEM	QUANT.	SIZE AND DESCRIPTION
1	2	CU. FT. CONCRETE
2	1	STEEL PIPE 1 1/4 "x 24 " , 1 END THREADED
3	1	STEEL PIPE COUPLING 1 1/4 "
4	1	STEEL PIPE 1 1/4 "x 33 1/2 " , BOTH ENDS THREADED
5	2	STEEL 45° ELBOW 1 1/4 "
6	1	STEEL PIPE 1 1/4 "x 2 3/4 " , 1 END THREADED
7	1	STEEL PIPE 1 "x 9 "
8	1	STEEL PIPE 1 1/4 "x 5 " , 1 END THREADED
9	1	STEEL PIPE 1 1/4 "x 42 1/2 " , 1 END THREADED
10	2	LAG BOLTS 1/4 "x 3 1/2 " LONG
11	2	1 1/4 " PIPE CLAMPS (TAILPIPE TYPE)
12	1	2"x 8"x 20" WOOD BOARD
13	1	MAILBOX (STANDARD SIZE)



PENNDOT
Commonwealth of PA